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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/905,625	07/13/2001	Meera Desikamani	42390P12062	3704

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EXAMINER

HOFFMAN, BRANDON S

ART UNIT	PAPER NUMBER
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2136

DATE MAILED: 08/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/905,625

Applicant(s)

DESIKAMANI ET AL.

Examiner

Brandon S. Hoffman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 June 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-19 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 07 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6-7-05
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-19 are pending in this office action.
2. Applicant's arguments, filed June 7, 2005, have been fully considered but they are not persuasive.

Claim Rejections

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

4. Claims 1-14 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raith (U.S. Patent No. 5,237,612) in view of Huang et al. (U.S. Patent No. 6,477,543).

Regarding claims 1, 8, 12, 16, and 18, Raith teaches a method/machine-accessible medium for a first device and a second device to maintain synchronization of a shared, dynamic secret, the method comprising:

- The second device sending an authentication request to the first device (col. 17, lines 12-18);
- The first device, in response to the authentication request,

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- Authenticating the second device (col. 17, lines 16-18),
 - Sending an authentication reply to the second device (col. 17, lines 18-20), and
 - Advancing a first copy of the secret (col. 17, lines 35-40);
- The second device, in response to the authentication reply,
 - Advancing a second copy of the secret (col. 17, lines 35-40, the second device would have to advance its copy of the rolling code or else it would be pointless in having a rolling code);
- The first device,
 - Sending data to the second device (col. 20, lines 9-12),
 - Again advancing the first copy of the secret (col. 19, lines 62-67);
- The second device,
 - Consuming the data (col. 20, lines 9-12), and
 - Again advancing the second copy of the secret (col. 19, lines 62-67, the second device would have to advance its copy of the rolling code or else it would be pointless in having a rolling code).

Raith does not teach the first device sending a data completion message to the second device. However, it can be argued that the first device sends a completion message because the call ends successfully. Some type of message would have to be sent from the first device to the second device in order for proper termination of the call.

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Huang et al. teaches the first device sending a data completion message to the second device (col. 12, lines 51-55).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine sending a data completion message to the second device, as taught by Huang et al., with the method of Raith. It would have been obvious for such modifications because a termination message indicates the resources used are no longer needed, thus freeing up resources.

Regarding claim 2, the combination of Raith in view of Huang et al. teaches wherein the first device comprises a server and the second device comprises a web appliance (see fig. 1, ref. num 101/106 of Huang et al.).

Regarding claims 3 and 9, the combination of Raith in view of Huang et al. teaches further comprising:

- The first device storing the again advanced first copy of the secret (see col. 20, lines 17-21 of Raith); and
- The second device storing the again advanced second copy of the secret (see col. 20, lines 17-21).

Regarding claim 4, the combination of Raith in view of Huang et al. teaches further comprising executing a recovery technique in response to the first and second copies of the secret becoming out of synchronization (see col. 20, lines 15-46 of Raith).

Regarding claim 5, Raith teaches a system for use on a network, the system comprising:

- A server including,
 - A communication interface (fig. 3, ref. num 119'/120'),
 - A processor for performing logic operations (fig. 3, ref. num 134'),
 - Storage (fig. 3, ref. num 116'),
 - Stored in the storage, a first copy of a secret (fig. 3, ref. num 116' and col. 16, lines 29-35),
 - A secret validator (col. 17, lines 15-18), and
 - Means for advancing the first copy of the secret (fig. 3, ref. num 119'/120');
- A web appliance including,
 - A communication interface coupling the web appliance to the server over the network (fig. 2, ref. num 119/120),
 - A processor for performing logic operations (fig. 2, ref. num 134),
 - **First** storage (fig. 2, ref. num 116),
 - Stored in the **first** storage of the web appliance, a second copy of the secret (fig. 2, ref. num 116 and col. 16, lines 29-35),

- Means for advancing the second copy of the secret (fig. 2, ref. num 119/120);
- **Second storage to store an authentication protocol to generate an authentication request to be sent to the server** (col. 17, lines 12-18);
and
- The server and the web appliance further including, a protocol for recovering synchronization of the first and second copies of the secret (col. 20, lines 15-46).

Raith does not teach the first device is a server and the second device is a web appliance.

Huang et al. teaches the first device is a server and the second device is a web appliance (fig. 1, ref. num 101/106).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine the use of a server and web appliance as devices, as taught by Huang et al., with the system of Raith. It would have been obvious for such modifications because a server provides services to many clients over a network.

Regarding claims 6 and 13, the combination of Raith in view of Huang et al. teaches wherein the secret comprises a PIN (see col. 9, line 64 through col. 10, line 4 of Huang et al.).

Regarding claims 7 and 14, the combination of Raith in view of Huang et al. teaches wherein the PIN comprises a number of at least 80 bits (see col. 23, lines 6 of Raith, 12 bits of the rolling code are used. The claim limitation calls for at least 80 bits, however, Raith teaches 12 bits. As technology advances, more bits can be realized in a system. Raith's teachings were in 1991—10 years later (which is a very long time for improvement in computer terms) the instant application was filed. It is within reason that the rolling code can consist of 80 or more bits).

Regarding claims 10 and 17, the combination of Raith in view of Huang et al. teaches further comprising the client device in response to not receiving an affirmative authentication reply from the server device,

- Advancing the first copy of the secret (see col. 17, lines 25-30 of Raith),
- Sending the advanced first copy of the secret to the server device (see col. 17, lines 25-30 of Raith).

Regarding claim 11, the examiner takes Official notice that advancing the first copy of the secret comprises twice advancing the first copy of the secret would have been an obvious modification. Although Raith never states how many times the rolling code is advanced, it is well within the general understanding in the art that the rolling code can be advanced once, twice, or any other arbitrary number—as long as the second copy is advanced as many times as the first. The number of times the code is

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advanced can even change with each transmission, thus creating more security in the system.

Claims 15 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raith (USP '612) in view of Huang et al. (USPN '543), and further in view of Schulz (U.S. Patent Pub. 2002/0138737 A1).

Regarding claims 15 and 19, the combination of Raith in view of Huang et al. teaches further comprising determining that the appliance is not authentic and, responsive to that determination, disconnecting communication to the appliance (see col. 19, lines 43-45 of Raith).

The combination of Raith in view of Huang et al. does not teach logging the failed authentication request.

Schulz teaches logging the failed authentication request (paragraph 0058).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to combine logging the failed authentication request, as taught by Schulz, with the system of Raith/Huang et al. It would have been obvious for such modifications because a log contains a history for an account that can be used for reporting.

Response to Arguments

5. Applicant argues that Raith (USPN 5,237,612) does not teach the first device authenticates the second device in response to an authentication request send from the second device (page 9).

Regarding applicant's argument, examiner disagrees with applicant. The network (second device) does indeed send an authentication request, as cited by the examiner in the previous office action. The passage cited (col. 17, lines 12-18) shows that the network sends a RESPBIS to the mobile station to validate the network and, similarly, the mobile device sends a RESP to the network to validate the mobile device. The network sends a RAND and RESPBIS to the mobile network and calls this an ***authentication order*** telling the mobile device to respond to these values and transmit back a RESP. This clearly shows "the second device sending an authentication request to the first device," as cited in the independent claims.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

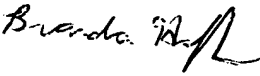
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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brandon S. Hoffman whose telephone number is 571-272-3863. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz R. Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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